NOTES

A NOTE ON THE GEOGRAPHIC RANGE OF ANTENNARIA AROMATICA EVERT (ASTERACEAE: INULEAE) - In the spring of 1980, Ledyard Stebbins and I discovered a herbarium specimen collected by Arthur Cronquist at Quad Creek, Beartooth Pass, Montana that appeared to be different from any other Antennaria known to us. Later that summer, a visit to the herbarium of Montana State University (MONT) turned up several other specimens of the taxon, identified variously as A. albina (L.) Gaertner, A. media E. Greene, and A. umbrinella Rydberg. We were able to collect and study specimens from Quad Creek (Bayer & Stebbins 8092), Tiger Butte south of Great Falls, Montana (Bayer & Stebbins 8113), and Mt. Sacajawea north of Bozeman, Montana (Bayer & Stebbins 8104), the first two collections being eventually cited as paratypes of the new species. It was immediately obvious to us that this very glandular, aromatic, plant was an undescribed species of Antennaria. About the same time we became aware that Erwin Evert, who was working on a floristic treatment of Park County, Wyoming, had come to the same conclusion, after collecting the species on limestone talus near Cody, Wyoming. In collaboration with us, he published the new species, calling it A, aromatica Evert (1984). Evert described the range as Park Co., Wyoming to Cascade Co. Montana (Evert 1984).

As a result of a search through all area herbaria, a distribution map was presented recently, showing the approximately 30 known sizes for the species in Wyoming, Montana, with two slightly disjunct populations in Alberta (Bayer 1989B). My idea of the geographical distribution of the species has changed little from Evert's (1984) first description; its primary geographical distribution is the front ranges of the Rockies from near Cody, Wyoming north to the Alberta/Montana border (Bayer 1989B). Some disjunct populations occur in previously unglaciated portions of the Alberta front range north to near Mountain Park, Alberta (Bayer 1989B).

In a recent discussion of the range of the recently described A. aromatica Chmielewski & Chinnappa (1988) accepted it as a distinct species, but some of the eight specimens they cited as A. aromatica are misidentified. I have been able to determine by inspection or deduce that most of the five specimens cited by Chmielewski & Chinnappa (1988) from Montana are A. aromatica (sensu Bayer 1989B). Three of the specimens represent collections from sites previously known to me; Cronquist 8092 (which originally led us to the type locality), Neeley & Smith 1665 (at or near the type locality), and Daubenmire 48231 (same as Bayer et al. MT-754 cited in Bayer

1989A). I have not seen Forsella s.n., but it is likely to be A. aromatica sensu Bayer, 1989B) as it is from the peak adjacent to Mr. Sacajawea, where A. aromatica is abundant. One specimen, Suksdorf 1063 is clearly nonglandular with light brown phyllaries and upsurgent stolons and in my opinion typical A. umbrinella Rydberg (sensu Bayer 1988). The specimen from southern Alberta could pass for A. aromatica (Stebbins, pers. comm.) and is within the extended range of the species recently presented by me (Bayer 1989B). I was unable to obtain the British Columbia collection (Selbv 289) for verification.

The most significant and controversial range extension they Chmiclewski & Chinnappa 1988) report is *Bell & Johnson* 766 from Mono Co., California. After examination of this non-glandular, black-phyllaried specimen, I conclude it is alpine *A. media* E. Greene (sensu Bayer 1988). Stebbins and Evert, after examining this specimen, concur that it is clearly *A. media* (Stebbins, pers. comm.).

In my opinion, two of the eight specimens that Chmielewski & Chinnappa (1988) have sited as A. aromatica, including the major range extension to California, are misidentified. Consequently, I still maintain that A. aromatica is a narrowly restricted endemic, based on the size of its range and the rather unique habitat requirements when compared to other sexually reproducing species of Antennaria. — R. J. Bayer, Department of Botany, University of Alberta, Edmonton, Alberta T6G 219, CANADA.

REFERENCES

- BAYER, R. J. 1988. Typification of western North American Amenaria Gaertner (Asteraceae: Inuleae). I. Sexual species of sections Alpinae, Dioicae, and Plantaginifoliae. Taxon 37:292 – 298.
- 1989B. A systematic and phytogeographic study of Antennaria aromatica and A. densifolia (Asteraceae: Inuleae) in the western North American cordillera. Madroño 36:248 – 259.
- CHMIELEWSKI, J. G. C. C. CHINNAPPA. 1988. Range extension of Antennaria aromatica Evert (Asteraceae: Inuleae). Sida 13:256 258.
- EVERT, E. 1984. A new species of Amennaria (Asteraceae) from Montana and Wyoming. Madroño 31:109 – 112.

TWO WEEDY SPECIES, AMMOSELINUM BUTLERI (UM-BELLIFERAE), AND LEPIDIUM AUSTRINUM (CRUCIFERAE), NEW TO MISSISIPPI. — The following notes on two species, Ammoselinum butleri (S. Wats.) Coult. & Rose and Lepidium austrinum Small, are